

Title: *Landsat Data Continuity Mission Expected Instrument Performance*

Keywords: Landsat, LDCM, NASA, U.S. Geological Survey, Instrument Performance, OLI, TIRS

Type: Paper

Abstract: The Landsat Data Continuity Mission (LDCM) is scheduled for a December 2012 launch date. LDCM is being managed by an interagency partnership between NASA and the U.S. Geological Survey (USGS). In order to provide the necessary spectral coverage of the visible through shortwave-infrared (SWIR) and the thermal-infrared (TIR), the satellite will carry two sensors. The Operational Land Imager (OLI) will collect data for nine visible to shortwave spectral bands with a spatial resolution of 30 m (with a 15 m panchromatic band). The Thermal Infrared Sensor (TIRS) will collect coincident image data for two TIR bands with a spatial resolution of 100 m. The OLI is fully assembled and tested and has been shipped by its manufacturer, Ball Aerospace and Technology Corporation, to the Orbital Sciences Corporation (Orbital) facility where it is being integrated onto the LDCM spacecraft. Pre-launch testing indicates that OLI will meet all performance specification with margin. TIRS is in development at the NASA Goddard Space Flight Center (GSFC) and is in final testing before shipping to the Orbital facility in January, 2012. The presentation will describe the LDCM satellite instrument systems, present pre-launch performance data for OLI and TIRS, and present simulated images to highlight notable features and expected imaging performance.

Authors: Philip W Dabney, NASA GSFC philip.w.dabney@nasa.gov*

James R Irons, Earth Science Division NASA Goddard Space Flight Center James.R.Irons@nasa.gov

Brian L Markham, Biospheric Science Laboratory, NASA Goddard Space Flight Center brian.l.markham@nasa.gov

Dennis C Reuter, NASA GSFC dennis.c.reuter@nasa.gov

James C Storey, USGS/SAIC james.c.storey@nasa.gov